

the subrogation process may be provided. The method may include, via one or more local or remote processors, servers, sensors, and/or associated transceivers: (1) receiving, at one or more processors, a disputed line item transaction from at least one other participant in the distributed ledger network; (2) analyzing, at the one or more processors, the disputed line item transaction; (3) generating, at the one or more processors, a confirmation transaction including a consent dataset related to the disputed line items; and/or (4) transmitting, at the one or more processors, the confirmation transaction to a smart contract stored on the distributed ledger. The method may include additional, less, or alternate actions, including those discussed elsewhere herein.

**[0010]** In yet another aspect, a computer system configured to determine responsibility to pay for line items as part of the subrogation process may be provided. The system may include one or more processors, servers, sensors, and/or associated transceivers configured to: (1) receive a transaction from at least one other participant in the distributed ledger network; (2) analyze the transaction to determine a set of line items related to a subrogation claim; (3) compare the set of line items to a baseline dataset; (4) generate a transaction including a disputed line items dataset; and/or (5) transmit the transaction to a smart contract stored on the distributed ledger. The system may include additional, less, or alternate components and actions, including those discussed elsewhere herein.

**[0011]** The methods may be implemented via computer systems, and may include additional, less, or alternate actions or functionality. Systems or computer-readable media storing instructions for implementing all or part of the method described above may also be provided in some aspects. Systems for implementing such methods may include one or more of the following: a special-purpose computing device, a personal electronic device, a processing unit of a vehicle, a remote server, one or more sensors, one or more communication modules configured to communicate wirelessly via radio links, radio frequency links, and/or wireless communication channels, and/or one or more program memories coupled to one or more processors of the personal electronic device, processing unit of the vehicle, or remote server. Such program memories may store instructions to cause the one or more processors to implement part or all of the method described above. Additional or alternative features described herein below may be included in some aspects.

**[0012]** This summary is provided to introduce a selection of concepts in a simplified form that are further described in the Detailed Descriptions. This summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used to limit the scope of the claimed subject matter.

**[0013]** Advantages will become more apparent to those of ordinary skill in the art from the following description of the preferred aspects, which have been shown and described by way of illustration. As will be realized, the present aspects may be capable of other and different aspects, and their details are capable of modification in various respects. Accordingly, the drawings and description are to be regarded as illustrative in nature and not as restrictive.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0014]** The figures described below depict various aspects of the system and methods disclosed herein. It should be

understood that each figure depicts an embodiment of a particular aspect of the disclosed system and methods, and that each of the figures is intended to accord with a possible embodiment thereof. Further, wherever possible, the following description refers to the reference numerals included in the following figures, in which features depicted in multiple figures are designated with consistent reference numerals.

**[0015]** There are shown in the drawings arrangements which are presently discussed, it being understood, however, that the present embodiments are not limited to the precise arrangements and are instrumentalities shown, wherein:

**[0016]** FIG. 1 is a schematic diagram of an exemplary shared ledger system for managing and resolving subrogation claims with arbitration, in accordance with one aspect of the present disclosure;

**[0017]** FIG. 2 depicts an exemplary shared ledger system for resolving subrogation claims, in accordance with one aspect of the present disclosure;

**[0018]** FIG. 3 depicts exemplary validating network nodes and an exemplary transaction flow on a shared ledger network for resolving subrogation claims, in accordance with one aspect of the present disclosure;

**[0019]** FIG. 4 depicts exemplary components of a network node on a shared ledger network for resolving subrogation claims, in accordance with one aspect of the present disclosure;

**[0020]** FIG. 5 depicts an exemplary smart contract state in a shared ledger network for resolving subrogation claims, in accordance with one aspect of the present disclosure;

**[0021]** FIG. 6 depicts an exemplary transaction representing an evidence transaction generated by an evidence oracle associated with one aspect of the present disclosure;

**[0022]** FIG. 7 depicts an exemplary system for generating suggested subrogation amounts using machine learning;

**[0023]** FIG. 8 depicts an exemplary flow diagram for generating suggested subrogation amounts using machine learning;

**[0024]** FIG. 9 depicts an exemplary flow diagram for providing a line item dispute mechanism related to a subrogation claim;

**[0025]** FIG. 10 depicts an exemplary flow diagram for interacting with a distributed ledger to create subrogation claims related to a vehicle accident;

**[0026]** FIG. 11 depicts various sources of sensor, image, or telematics data used to initiate blockchain creation for vehicle collisions; and

**[0027]** FIGS. 12-15 depict exemplary computer-implemented methods of handling an insurance claim via a shared ledger.

**[0028]** The Figures depict preferred embodiments for purposes of illustration only. One skilled in the art will readily recognize from the following discussion that alternative embodiments of the systems and methods illustrated herein may be employed without departing from the principles of the invention described herein.

#### DETAILED DESCRIPTION

**[0029]** Traditionally, businesses, customers, and central authorities, such as those involved in an insurance claim, have stored information related to transactions, and records of transactions, in databases or ledgers. Often these databases and ledgers are held by the participants and may be reconciled to achieve consensus as to the validity of the information stored therein. Alternatively, a central authority